

LNDD “Science” Clearly Absurd

- Controls would be positive in LNDD system!

	$\delta^{13}\text{C}$, ‰			Difference, ‰	
	5 β A	5 α A ^a	5 β P ^b	5 β P – 5 β A	5 β P – 5 α A
Mean	-25.69	-26.35	-24.26	1.43	2.09
SD	0.92	0.68	0.70	0.68	0.63
CV, %	3.6	2.6	2.9		
Mean + 3 SD	-22.92	-24.31	-22.15	3.47	3.99
Mean – 3 SD	-28.46	-28.39	-26.37	-0.62	0.18
Maximum	-23.90	-24.55	-22.92	3.17	3.72
Minimum	-27.82	-27.89	-25.49	-0.08	0.16
Max – Min	3.9	3.3	2.6		

^a Mean significantly different from 5 β A.
^b Mean significantly different from 5 β A and 5 α A.

This is the seminal carbon isotope study from UCLA, by far the largest drug-testing lab in the world. [1] In this study UCLA established their positivity criteria based on 73 control (“normal”) subjects. Red circles show delta maximum delta values over 3.00 for two metabolites, 5 beta androstanediol and 5 alpha androstanediol. .

We don’t know the LNDD criteria – because they haven’t supplied us with their standard operating procedures. We have asked USADA to provide this information. They have refused.

Some have said that a few labs use an *any* metabolite criterion. If the LNDD standard is 3.00 for *any* metabolite, at least some of the UCLA controls would be positive.

That is absurd. It makes no sense for control (“negative/normal”) subjects to have positive drug test results.

Again, I view this as a failure of WADA to (1) provide fairness and equality and (2) ensure a harmonized (standardized/uniform) program.

[1] Table 3 from: Aguilera, R et al. Performance Characteristics of a Carbon Isotope Ratio Method for Detecting Doping with Testosterone Based on Urine Diols: Controls and Athletes with Elevated Testosterone/Epitestosterone Ratios. Clinical Chemistry 47 (2) 292-300. (2001).